

ABSTRACT

A sensor substrate (20) which includes phototransistors (7), each having a photosensitive semiconductor layer, and auxiliary capacitances (17) connected to the drain electrodes D of the corresponding phototransistors (7), and detecting ICs (25) for detecting a photoelectric conversion amount of the sensor substrate (20), which is connected to a source electrode S of the phototransistor (7), are provided. In the auxiliary capacitance (17), a predetermined amount of charge is stored, and also stored are the charge as generated by an emission of a light beam onto a photosensitive semiconductor layer in the non-conductive state of the phototransistor (7). Each detecting IC (25) detects a photoelectric conversion amount of the sensor substrate (20) based on the amount of charge remaining in the auxiliary capacitance (17).

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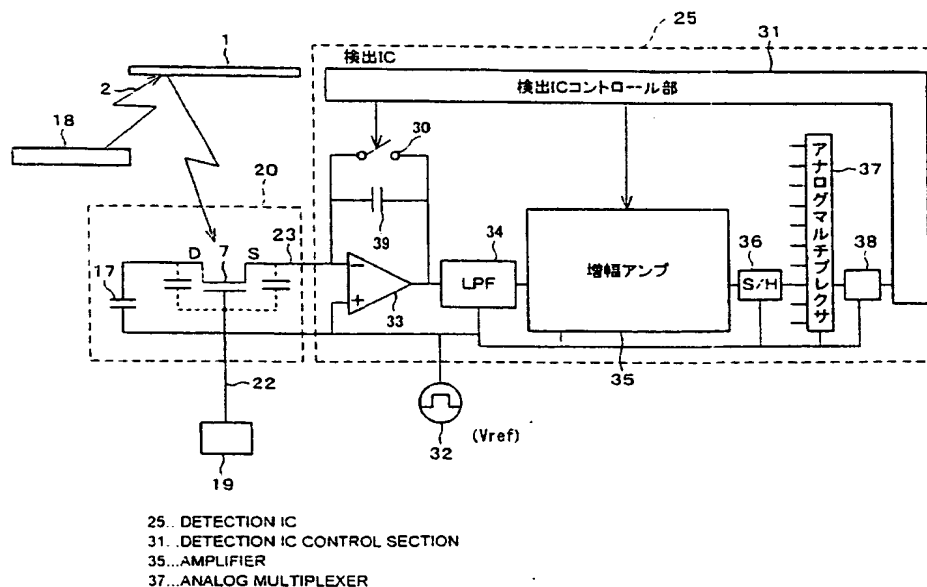
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(54) Title: METHOD FOR DETECTING PHOTOELECTRIC CONVERSION AMOUNT AND PHOTOELECTRIC CONVERTER. METHOD FOR INPUTTING IMAGE AND DEVICE FOR INPUTTING IMAGE. TWO-DIMENSIONAL IMAGE SENSOR AND METHOD FOR DRIVING TWO-DIMENSIONAL IMAGE SENSOR

(54) 発明の名称: 光電変換量検出方法および光電変換装置、画像入力方法および画像入力装置、2次元イメージセンサおよび2次元イメージセンサの駆動方法



(57) Abstract: A photoelectric converter comprising a sensor substrate (20) mounting a phototransistor (7) having a photosensitive semiconductor layer and an auxiliary capacitor (17) connected with the drain electrode D of the phototransistor (7), and an IC (25) connected with the source electrode S of the phototransistor (7) and detecting photoelectric conversion amount of the sensor substrate (20). The auxiliary capacitor (17) is charged with a specified quantity of charges and with charges being generated by irradiating the photosensitive semiconductor layer with light under nonconductive state of the phototransistor (7), and the IC (25) detects the photoelectric conversion amount of the sensor substrate (20) based on the charges of the auxiliary capacitor (17).

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